

# Pearlthane® 11T65D

Thermoplastic Polyurethane Elastomer (Polycaprolactone)

Lubrizol Advanced Materials, Inc.

## Message:

Pearlthane® 11T65D is a polycaprolactone copolyester based TPU, supplied in form of translucent, colourless pellets, combining very high hardness with excellent mechanical properties. It is especially designed for injection moulding.

Pearlthane® 11T65D is very adequate for the production of shoe heels and top pieces, as well as technical parts. It is also suitable for the production of compounds for the automotive industry.

General Information			
Features	High hardness		
Uses	Engineering accessories		
	Application in Automobile Field		
	Footwear		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Translucent		
	Colorless		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm <sup>3</sup>	ASTM D792
20°C	1.20	g/cm <sup>3</sup>	ISO 2781
Moisture Content		%	Internal method
Abrasion Loss	25.0	mm <sup>3</sup>	ISO 4649
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	64		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 527
100% strain	25.0	MPa	ASTM D412, ISO 527
300% strain	31.0	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	35.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	440	%	ASTM D412, ISO 527
Tear Strength			
-- <sup>1</sup>	210	kN/m	ASTM D624
--	210	kN/m	ISO 34-1
Compression Set			ASTM D395B
23°C, 70 hr	35	%	ASTM D395B
70°C, 22 hr	50	%	ASTM D395B

Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature <sup>2</sup>	-23.0	°C	ISO 11357-2
Melting Temperature <sup>3</sup>	205 - 215	°C	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	100 - 110	°C	
Drying Time	1.0 - 2.0	hr	
Rear Temperature	220	°C	
Middle Temperature	225	°C	
Front Temperature	230	°C	
Nozzle Temperature	225	°C	
Mold Temperature	35.0	°C	
Screw L/D Ratio	23.0:1.0		
Injection instructions			
Closing Force: 30 tonsScrew Diameter: 30 mmMaximum Hydraulic Pressure: 210 barMold: Plaque 120x120x2 mm			
NOTE			
1.	C mould		
2.	10°C /min		
3.	Temperature at which MFI = 10 g/10 min @ 21.6 kg		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

